

### **DETAILED ACTION**

Applicants amendment filed March 23, 2011 has been received and entered. Claims 6-8, 13-20, 31-32, 34, 39-40, 44-45, 50-51, 57-58, 63-64, 69-70, 77-78, and 84-85 have been cancelled. Consequently, claims 1-5, 9-12, 21-30, 33, 35-38, 41-43, 46-49, 52-56, 59-62, 65-68, 71-76, and 79-83 are pending in the instant application, of which claims 26-30, 33, 46-49, 52-56, 59-62, 65-68, 71-76, and 79-83 have been withdrawn from further consideration as being drawn to a non-elected invention.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. The rejection of claims 1-5, 9-12, 21-25, 35-38 and 41-43 under 35 U.S.C. 102(e) as being as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Mahan et al is maintained.

Applicants are asserting that the Mahan application claims a method involving several species of bacteria, including *Pasteurella multocida*, however it fails to disclose the *Mannheimia haemolytica* as a bacterial species that can be used.

Applicants arguments have been fully considered but are not found to be persuasive.

Applicants assert that Mahan fails to disclose that *Mannheimia haemolytica* can be used as a bacterial species in which to alter DAM activity. Unfortunately, Applicants appear to have not completely considered the disclosure of Mahan. Specifically, Applicants are directed to the specification heading "Dam Altered Bacteria" paragraph number 8 following this heading recites bacteria which may be used as a starting strain to create attenuated Dam altered bacteria. The very last bacteria recited in this list is "*Mannheimia haemolytica*." Accordingly, Applicants arguments are simply refuted by the teachings of Mahan et al.

Final Note: Applicants filed a Declaration by Mark Lawrence on May 28, 2010 to demonstrate evidence of conception prior to the date of the Mahan reference. However, this Declaration showed altered Dam genes in *Pasteurella multocida*. As the current claims are now directed to *Mannheimia haemolytica*, this Declaration is no longer applicable to the instantly filed claims and consequently cannot be used to remove the Mahan reference as prior art.

The claims are directed to an attenuated strain of a bacteria of the species *Mannheimia haemolytica*, said bacteria comprising altered DNA adenine methylase (Dam) activity such that the bacteria are attenuated.

Mahan et al (US Patent Number 7,026,155) disclose of compositions containing *Pasteurella multocida* bacteria having non-reverting genetic mutations which alter

activity of DNA adenine methylase (Dam) resulting in attenuation. (See claim 9 and detailed paragraph 29). Mahan et al further disclose that Mannheimia haemolytica can be used as a bacterial species to create non-reverting genetic mutations which alter activity of DNA adenine methylase resulting in attenuation. (See heading "Dam Altered Bacteria").

For reasons of record, as well as the reasons set forth above, this rejection is maintained.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Navarro whose telephone number is (571)272-0861.

Art Unit: 1645

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Nickol can be reached on (571) 272-0835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Navarro/  
Primary Examiner, Art Unit 1645  
June 23, 2011